AMENDMENTS TO THE SPECIFICATION

Please insert the following new paragraphs on page 9, after the second paragraph and before the third paragraph:

As illustrated in FIG. 5, the circuit also includes a constant block 27 that feeds into an integrator block 29, the output of which is combined with the output of VCO 61 to produce a result. This result, along with data input 21, is input to a transport delay block 23 and a unit delay block 25. From unit delay block 25, the signal branches to unit delay block 47, which outputs to comparator block 51, and to transport delay block 33, which outputs to unit delay block 35 that in turn outputs to comparator block 37.

The circuit of FIG. 5 also includes an XOR block 45 that receives signals 20 and 22 as inputs, and an XOR block 55 that receives signals 18 and 22 as inputs.

Please amend the third paragraph on page 9 as follows:

FIG. 6 is a flow diagram illustrating <u>a method for eliminating dead zone using a binary quantized phase detector according to</u> ~~the steps for the~~ one embodiment of the present invention. Step 63 shows that a signal B in the wandering interval is sampled and compared to a threshold value <u>(step 65)</u>. If the value of B is less than the threshold value, B is set to -0.5 <u>(step 67)</u>; if the value of B is greater than or equal to the threshold value, B is set to 0.5 <u>(step 69)</u> as shown in FIG. 4.

Please amend the second paragraph on page 10 as follows:

Both samples A and C are subsequently compared to 0 in steps 79 and 81. If the value of either signal is less than 0 (zero), the signal is set to 0 <u>(steps 83, 87)</u>; otherwise, the signal is set to 1 <u>(steps 85, 89)</u>. Step 91 then <u>applies an</u> ~~applied a~~ XOR function to the resulting signals A and C to determine if a data transition has occurred in the interval between the two sample points.

Please amend the fourth paragraph on page 10 as follows:

If the output O of step 73 is 0 (zero), the integrating step is overlooked, and the phase detector restarts the sampling process for all three signals. If the output O of step 73 is 1, the value of B is integrated in step 93, and the result is set as the new threshold for the phase detector <u>(step 95)</u>.

Please amend the abstract on page 18 as indicated on the following page:

~~The present invention provides the~~ <u>A</u> method and apparatus for eliminating dead zone in a phase locked loop with binary quantized detectors <u>are described</u>. ~~In a first embodiment, the present invention eliminates dead~~ <u>Dead</u> zone <u>can be eliminated</u> by changing the threshold used to quantize the cross point sample. A quantized cross point sample is integrated in order to set a new threshold. ~~Furthermore, in a second embodiment, the~~ <u>The</u> integration <u>may be</u> ~~is~~ performed ~~only~~ during data transitions to eliminate threshold drift during long sequences where no transitions occur.